

Claims

We claim:

1. A sweeper comprising:

a first main wheel being capable of spinning in both a
5 counterclockwise and a clockwise direction;

a brush wheel driven by said main wheel and being
capable of spinning in a counterclockwise direction
irrespective of the spinning direction of the main wheel;

10 a plurality of intermediate wheels capable of
translating the spinning motion from said main wheel to
said brush wheel; and

each of said wheels capable of simultaneous and non-
slip spinning.

15 2. The sweeper of claim 1 wherein said wheels comprise
gears, said plurality of intermediate wheels comprising a
first and second drive wheels and third gear wheel, said
first and second drive wheels having gears;

said first drive wheel capable of spinning in a
20 clockwise direction, said second drive wheel capable of
spinning in a counterclockwise, said first and second drive
wheels capable of being in direct contact with each other,
said third gear wheel capable of spinning in a
counterclockwise direction, said third wheel being in
25 direct contact with both the first drive wheel and the
brush wheel;

said first and second drive wheels each having an end
gear, said first end gear capable of connecting with main
wheel when said main wheel spins in a clockwise direction
30 and said second end gear capable of connecting with said
main gear when said main gear spins in a counterclockwise
direction.

3. The sweeper of claim 2 having a case and a handle, the handle connected to the case and capable of being removed from the case.

5

4. The sweeper of claim 3 having a second main wheel and an axel connecting said second main wheel to said first main wheel, said first and second main wheels capable of fitting within said case.

10

5. The sweeper of claim 4 wherein said brush wheel having a gear capable of rotating said brush wheel simultaneously with said first gear.

15 6. The sweeper of claim 5 wherein each of said main wheel is at least twice the diameter of each respective end wheel.

7. The sweeper of claim 6 wherein the first and second gear wheel are each the same diameter and each a larger diameter than the end wheel and a smaller diameter than said main wheel.

20 8. The sweeper of claim 7 wherein the brush wheel being a smaller diameter than said first and second gear wheel and larger in diameter than said end wheel.

25 9. The sweeper of claim 8 wherein the third gear wheel having substantially the same diameter of the brush wheel.

30

10. A sweeper comprising a brush wheel, first and second drive wheels, a first and second end wheel, and a first and second main wheel;

wherein each main wheel is capable of automatically
5 shifting to the first or second end wheel, whereby the brush wheel is capable of spinning in a single direction regardless of the direction of the sweeper; and

wherein the drive wheels are capable of simultaneous and non-slip spinning.

10

11. The sweeper of claim 10 comprising a retainer for holding each main wheel to said sweeper; where each wheel comprises gears and each gear capable of continuous non-slip spinning.

15

12. The sweeper of claim 11 having a container, the container having a dust pan, the dust pan having a semicircular shape.

20 13. The sweeper of claim 12 having a rear wheel capable of supporting the rear of the case.

14. The sweeper of claim 13 having a handle.

25 15. The sweeper of claim 14 where said